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APPLICATION NO.	1	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,955	12/31/2003		Zuoren Nie	038873-0102	6211
22428	7590	01/14/2005		EXAMINER	
FOLEY A	ND LAR	DNER	MORILLO, JAI	MORILLO, JANELL COMBS	
SUITE 500 3000 K STI		,		ART UNIT	PAPER NUMBER
WASHING	WASHINGTON, DC 20007			1742	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	-				
Office Action Commons	10/747,955	NIE ET AL.					
Office Action Summary	Examiner	Art Unit					
	Janelle Combs-Morillo	1742					
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence addres	s				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period was reply to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	i6(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONED	ety filed will be considered timely. the mailing date of this commun (35 U.S.C. § 133).	nication.				
Status							
1) Responsive to communication(s) filed on 31 De	ecember 2003.						
2a) This action is <b>FINAL</b> . 2b) ☐ This	action is non-final.						
3) Since this application is in condition for allowan	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>1-13</u> is/are pending in the application.							
4a) Of the above claim(s) 6-13 is/are withdrawn	from consideration.						
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-5</u> is/are rejected.	Claim(s) <u>1-5</u> is/are rejected.						
7) Claim(s) is/are objected to.	Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examiner	•						
0)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11)☐ The oath or declaration is objected to by the Exa	aminer. Note the attached Office	Action or form PTO-15	52.				
Priority under 35 U.S.C. § 119							
<ul> <li>12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents</li> <li>2. Certified copies of the priority documents</li> <li>3. Copies of the certified copies of the priority</li> </ul>	have been received. have been received in Application	on No	e				
application from the International Bureau	(PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of	of the certified copies not received	<b>i</b> .					
Attachment(s)							
1) X Notice of References Cited (PTO-892)	4) 🔲 Interview Summary (	PTO-413)					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Dai 5) ☐ Notice of Informal Pa	te					
Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12/.31/03	6) Other:	кент Аррисацоп (РТО-152)					

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### **DETAILED ACTION**

## Claim Interpretation

1. Instant claim 1 states "an aluminum alloy consisting essentially of Zn, Mg, Er as the main alloying elements". The examiner interprets this language as an aluminum alloy consisting essentially of Zn, Mg, Er, and incidental impurities. If this interpretation is not consistent with applicant's intended interpretation, please clarify (including where said interpretation is found in the original specification) in response to this action. Otherwise, it is unclear which 'minor' alloying elements to add, and in what amount. 'Incidental impurites' have an understood meaning in the art.

## Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi et al (US 4,713,216).

Higashi teaches an Al-Zn-Mg alloy with added rare earth such as Er (column 2 line 32), which is effective to enhance the strength of said alloy. Higashi teaches 4-12% Zn, 0.3-5.0% Mg, and 0.5-10.0% rare earth (see abstract), which substantially overlaps the presently claimed alloying ranges.

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It would have been obvious to select Er from the markush group of rare earth elements taught by Higashi because Higashi teaches at column 2 lines 40-42 that said rare earth elements are recognized equivalents (see MPEP 2144.06).

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility. Because Higashi teaches a substantially overlapping alloy composition, it is held that Higashi has created a prima facie case of obviousness of the presently claimed invention.

#### Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ty Clynd

January 12, 2005